OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION:   US/10/080,917

DATE: 07/03/2002
TIME: 10:21:26

Input Set : A:\Seqlist.txt
Output Set: N:\CRF3\07032002\J080917.raw

```
 4  <110> APPLICANT: Cadet, Patrick
 5          Stefano, George B.
 7  <120> TITLE OF INVENTION: Opiate Receptors
10  <130> FILE REFERENCE: 09598-006001
12  <140> CURRENT APPLICATION NUMBER: US 10/080,917
13  <141> CURRENT FILING DATE: 2002-02-22
15  <150> PRIOR APPLICATION NUMBER: US 60/270,479
16  <151> PRIOR FILING DATE: 2001-02-22
18  <150> PRIOR APPLICATION NUMBER: US 60/336,677
19  <151> PRIOR FILING DATE: 2001-12-05
21  <160> NUMBER OF SEQ ID NOS: 28
23  <170> SOFTWARE: FastSEQ for Windows Version 4.0
25  <210> SEQ ID NO: 1
26  <211> LENGTH: 81
27  <212> TYPE: DNA
28  <213> ORGANISM: Homo Sapiens
30  <400> SEQUENCE: 1
31  aattattata taattcatag atgttgctgc aatacccctc ttatttctca aaagccagtc      60
32  ttgctctggt tctgtgatta a                                                 81
34  <210> SEQ ID NO: 2
35  <211> LENGTH: 26
36  <212> TYPE: PRT
37  <213> ORGANISM: Homo Sapiens
39  <220> FEATURE:
40  <223> OTHER INFORMATION: Peptide fragment
42  <400> SEQUENCE: 2
43  Asn Tyr Tyr Ile Ile His Arg Leu Cys Cys Asn Thr Pro Leu Ile Ser
44  1               5                   10                  15
45  Gln Lys Pro Val Leu Leu Trp Phe Cys Asp
46              20                  25
48  <210> SEQ ID NO: 3
49  <211> LENGTH: 262
50  <212> TYPE: DNA
51  <213> ORGANISM: Homo Sapiens
53  <220> FEATURE:
54  <221> NAME/KEY: misc_feature
55  <222> LOCATION: (1)...(262)
56  <223> OTHER INFORMATION: n = A,T,C or G
58  <400> SEQUENCE: 3
59  aattattata taattcatag atgttgctgc aatacccctc ttatttctca aaagccagtc      60
60  ttgctctggt tctgtgatta aagagagagg gtgagtgcct tgcccactgt ggtcatggat     120
W--> 61  gcaagatatt cacagaaaat tagcatcata gaaaaaaaan nnaaaaaaaa aaaaaaaaaa    180
W--> 62  ncatgtcggc cgcctcggcc aaacatcggg tcgagcatgc atctagggcg gccaattccg    240
```

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```
W--> 63 cccctctccc ccccngcnnt tt                                              262
     65 <210> SEQ ID NO: 4
     66 <211> LENGTH: 945
     67 <212> TYPE: DNA
     68 <213> ORGANISM: Homo Sapiens
     70 <400> SEQUENCE: 4
     71 atgaagactg ccaccaacat ctacattttc aaccttgctc tggcagatgc cttagccacc    60
     72 agtaccctgc ccttccagag tgtgaattac ctaatgggaa catggccatt tggaaccatc   120
     73 cttgcaaga tagtgatctc catagattac tataacatgt tcaccagcat attcaccctc   180
     74 tgcaccatga gtgttgatcg atacattgca gtctgccacc ctgtcaaggc cttagatttc   240
     75 cgtactcccc gaaatgccaa aattatcaat gtctgcaact ggatcctctc ttcagccatt   300
     76 ggtcttcctg taatgttcat ggctacaaca aaatacaggc aaggttccat agattgtaca   360
     77 ctaacattct ctcatccaac ctggtactgg gaaaacctgc tgaagatctg tgttttcatc   420
     78 ttcgccttca ttatgccagt gctcatcatt accgtgtgct atggactgat gatcttgcgc   480
     79 ctcaagagtg tccgcatgct ctctggctcc aaagaaaagg acaggaatct tcgaaggatc   540
     80 accaggatgg tgctggtggt ggtggctgtg ttcatcgtct gctggactcc cattcacatt   600
     81 tacgtcatca ttaaagcctt ggttacaatc ccagaaacta cgttccagac tgtttcttgg   660
     82 cacttctgca ttgctctagg ttacacaaac agctgcctca acccagtcct ttatgcattt   720
     83 ctggatgaaa acttcaaacg atgcttcaga gagttctgta tcccaacctc ttccaacatt   780
     84 gagcaacaaa actccactcg aattcgtcag aacactagag accacccctc cacggccaat   840
     85 acagtggata gaactaatca tcagaattat tatataattc atagatgttg ctgcaatacc   900
     86 cctcttattt ctcaaaagcc agtcttgctc tggttctgtg attaa                    945
     88 <210> SEQ ID NO: 5
     89 <211> LENGTH: 314
     90 <212> TYPE: PRT
     91 <213> ORGANISM: Homo Sapiens
     93 <400> SEQUENCE: 5
     94 Met Lys Thr Ala Thr Asn Ile Tyr Ile Phe Asn Leu Ala Leu Ala Asp
     95  1               5                   10                  15
     96 Ala Leu Ala Thr Ser Thr Leu Pro Phe Gln Ser Val Asn Tyr Leu Met
     97             20                  25                  30
     98 Gly Thr Trp Pro Phe Gly Thr Ile Leu Cys Lys Ile Val Ile Ser Ile
     99             35                  40                  45
    100 Asp Tyr Tyr Asn Met Phe Thr Ser Ile Phe Thr Leu Cys Thr Met Ser
    101         50                  55                  60
    102 Val Asp Arg Tyr Ile Ala Val Cys His Pro Val Lys Ala Leu Asp Phe
    103 65                  70                  75                  80
    104 Arg Thr Pro Arg Asn Ala Lys Ile Ile Asn Val Cys Asn Trp Ile Leu
    105                 85                  90                  95
    106 Ser Ser Ala Ile Gly Leu Pro Val Met Phe Met Ala Thr Thr Lys Tyr
    107                 100                 105                 110
    108 Arg Gln Gly Ser Ile Asp Cys Thr Leu Thr Phe Ser His Pro Thr Trp
    109             115                 120                 125
    110 Tyr Trp Glu Asn Leu Leu Lys Ile Cys Val Phe Ile Phe Ala Phe Ile
    111         130                 135                 140
    112 Met Pro Val Leu Ile Ile Thr Val Cys Tyr Gly Leu Met Ile Leu Arg
    113 145                 150                 155                 160
    114 Leu Lys Ser Val Arg Met Leu Ser Gly Ser Lys Glu Lys Asp Arg Asn
    115                 165                 170                 175
```

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Input Set : **A:\Seqlist.txt**
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```
116 Leu Arg Arg Ile Thr Arg Met Val Leu Val Val Val Ala Val Phe Ile
117               180               185               190
118 Val Cys Trp Thr Pro Ile His Ile Tyr Val Ile Ile Lys Ala Leu Val
119           195               200               205
120 Thr Ile Pro Glu Thr Thr Phe Gln Thr Val Ser Trp His Phe Cys Ile
121     210               215               220
122 Ala Leu Gly Tyr Thr Asn Ser Cys Leu Asn Pro Val Leu Tyr Ala Phe
123 225               230               235               240
124 Leu Asp Glu Asn Phe Lys Arg Cys Phe Arg Glu Phe Cys Ile Pro Thr
125           245               250               255
126 Ser Ser Asn Ile Glu Gln Gln Asn Ser Thr Arg Ile Arg Gln Asn Thr
127           260               265               270
128 Arg Asp His Pro Ser Thr Ala Asn Thr Val Asp Arg Thr Asn His Gln
129           275               280               285
130 Asn Tyr Tyr Ile Ile His Arg Leu Cys Cys Asn Thr Pro Leu Ile Ser
131     290               295               300
132 Gln Lys Pro Val Leu Leu Trp Phe Cys Asp
133 305               310
135 <210> SEQ ID NO: 6
136 <211> LENGTH: 1431
137 <212> TYPE: DNA
138 <213> ORGANISM: Homo Sapiens
140 <400> SEQUENCE: 6
141 atgtcagatg ctcagctcgg tcccctccgc ctgacgctcc tctctgtctc agccaggact    60
142 ggttttctgta agaaacagca ggagctgtgg cagcggcgaa aggaagcggc tgaggcgctt   120
143 gtaaccgaa aagtctcggt gctcctggct acctcgcaca gcggtgcccg cccggccgtc    180
144 agtaccatgg acagcagcgc tgcccccacg aacgccagca attgcactga tgccttggcg   240
145 tactcaagtt gctccccagc acccagcccc ggttctgggg tcaacttgtc ccacttagat    300
146 gtcaacctgt ccgacccatg cggtccgaac cgcaccgacc tggcgggag agacagcctg     360
147 tgccctccga ccggcagtcc ctccatgatc acggccatca cgatcatggc cctctactcc    420
148 atcgtgtgcg tggtgggggct cttcggaaac ttcctggtca tgtatgtgat tgtcagatac    480
149 accaagatga agactgccac caacatctac attttcaacc ttgctctggc agatgcctta    540
150 gccaccagta ccctgccctt ccagagtgtg aattacctaa tgggaacatg gccatttgga    600
151 accatccttt gcaagatagt gatctccata gattactata acatgttcac cagcatattc    660
152 accctctgca ccatgagtgt tgatcgatac attgcagtct gccaccctgt caaggcctta    720
153 gattccgta ctccccgaaa tgccaaaatt atcaatgtct gcaactggat cctctcttca    780
154 gccattggtc ttcctgtaat gttcatggct acaacaaaat acaggcaagg ttccatagat    840
155 tgtacactaa cattctctca tccaacctgg tactgggaaa acctgctgaa gatctgtgtt    900
156 ttcatcttcg ccttcattat gccagtgctc atcattaccg tgtgctatgg actgatgatc    960
157 ttgcgcctca agagtgtccg catgctctct ggctccaaag aaaaggacag gaatcttcga   1020
158 aggatcacca ggatggtgct ggtggtggtg gctgtgttca tcgtctgctg gactcccatt   1080
159 cacatttacg tcatcattaa agccttggtt acaatcccag aaactacgtt ccagactgtt   1140
160 tcttggcact tctgcattgc tctaggttac acaaacagct gcctcaaccc agtcctttat   1200
161 gcattctgg atgaaaactt caaacgatgc ttcagagagt tctgtatccc aacctcttcc   1260
162 aacattgagc aacaaaactc cactcgaatt cgtcagaaca ctagagacca ccctccacg   1320
163 gccaatacag tggataaac taatcatcag aattattata taattcatag atgttgctgc   1380
164 aataccctc ttatttctca aaagccagtc ttgctctggt tctgtgatta a            1431
166 <210> SEQ ID NO: 7
167 <211> LENGTH: 476
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168 <212> TYPE: PRT
169 <213> ORGANISM: Homo Sapiens
171 <400> SEQUENCE: 7
172 Met Ser Asp Ala Gln Leu Gly Pro Leu Arg Leu Thr Leu Leu Ser Val
173  1               5                  10                 15
174 Ser Ala Arg Thr Gly Phe Cys Lys Lys Gln Gln Glu Leu Trp Gln Arg
175             20                  25                 30
176 Arg Lys Glu Ala Ala Glu Ala Leu Gly Thr Arg Lys Val Ser Val Leu
177         35                  40                 45
178 Leu Ala Thr Ser His Ser Gly Ala Arg Pro Ala Val Ser Thr Met Asp
179     50                  55                 60
180 Ser Ser Ala Ala Pro Thr Asn Ala Ser Asn Cys Thr Asp Ala Leu Ala
181 65                  70                 75                 80
182 Tyr Ser Ser Cys Ser Pro Ala Pro Ser Pro Gly Ser Trp Val Asn Leu
183             85                  90                 95
184 Ser His Leu Asp Gly Asn Leu Ser Asp Pro Cys Gly Pro Asn Arg Thr
185             100                 105                110
186 Asp Leu Gly Gly Arg Asp Ser Leu Cys Pro Pro Thr Gly Ser Pro Ser
187             115                 120                125
188 Met Ile Thr Ala Ile Thr Ile Met Ala Leu Tyr Ser Ile Val Cys Val
189     130                 135                140
190 Val Gly Leu Phe Gly Asn Phe Leu Val Met Tyr Val Ile Val Arg Tyr
191 145                 150                155                160
192 Thr Lys Met Lys Thr Ala Thr Asn Ile Tyr Ile Phe Asn Leu Ala Leu
193             165                 170                175
194 Ala Asp Ala Leu Ala Thr Ser Thr Leu Pro Phe Gln Ser Val Asn Tyr
195             180                 185                190
196 Leu Met Gly Thr Trp Pro Phe Gly Thr Ile Leu Cys Lys Ile Val Ile
197             195                 200                205
198 Ser Ile Asp Tyr Tyr Asn Met Phe Thr Ser Ile Phe Thr Leu Cys Thr
199     210                 215                220
200 Met Ser Val Asp Arg Tyr Ile Ala Val Cys His Pro Val Lys Ala Leu
201 225                 230                235                240
202 Asp Phe Arg Thr Pro Arg Asn Ala Lys Ile Ile Asn Val Cys Asn Trp
203             245                 250                255
204 Ile Leu Ser Ser Ala Ile Gly Leu Pro Val Met Phe Met Ala Thr Thr
205             260                 265                270
206 Lys Tyr Arg Gln Gly Ser Ile Asp Cys Thr Leu Thr Phe Ser His Pro
207             275                 280                285
208 Thr Trp Tyr Trp Glu Asn Leu Leu Lys Ile Cys Val Phe Ile Phe Ala
209     290                 295                300
210 Phe Ile Met Pro Val Leu Ile Ile Thr Val Cys Tyr Gly Leu Met Ile
211 305                 310                315                320
212 Leu Arg Leu Lys Ser Val Arg Met Leu Ser Gly Ser Lys Glu Lys Asp
213             325                 330                335
214 Arg Asn Leu Arg Arg Ile Thr Arg Met Val Leu Val Val Val Ala Val
215             340                 345                350
216 Phe Ile Val Cys Trp Thr Pro Ile His Ile Tyr Val Ile Ile Lys Ala
217             355                 360                365
```

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Output Set: **N:\CRF3\07032002\J080917.raw**

```
218 Leu Val Thr Ile Pro Glu Thr Thr Phe Gln Thr Val Ser Trp His Phe
219     370                 375             380
220 Cys Ile Ala Leu Gly Tyr Thr Asn Ser Cys Leu Asn Pro Val Leu Tyr
221 385                 390             395                 400
222 Ala Phe Leu Asp Glu Asn Phe Lys Arg Cys Phe Arg Glu Phe Cys Ile
223             405             410             415
224 Pro Thr Ser Ser Asn Ile Glu Gln Gln Asn Ser Thr Arg Ile Arg Gln
225             420             425             430
226 Asn Thr Arg Asp His Pro Ser Thr Ala Asn Thr Val Asp Arg Thr Asn
227         435             440             445
228 His Gln Asn Tyr Tyr Ile Ile His Arg Leu Cys Cys Asn Thr Pro Leu
229     450             455             460
230 Ile Ser Gln Lys Pro Val Leu Leu Trp Phe Cys Asp
231 465             470             475
233 <210> SEQ ID NO: 8
234 <211> LENGTH: 1245
235 <212> TYPE: DNA
236 <213> ORGANISM: Homo Sapiens
238 <400> SEQUENCE: 8
239 atggacagca gcgctgcccc cacgaacgcc agcaattgca ctgatgcctt ggcgtactca    60
240 agttgctccc cagcacccag ccccggttcc tgggtcaact tgtcccactt agatggcaac   120
241 ctgtccgacc catgcggtcc gaaccgcacc gacctgggcg ggagagacag cctgtgccct   180
242 ccgaccggca gtccctccat gatcacggcc atcacgatca tggccctcta ctccatcgtg   240
243 tgcgtggtgg ggctcttcgg aaacttcctg gtcatgtatg tgattgtcag atacaccaag   300
244 atgaagactg ccaccaacat ctacattttc aaccttgctc tggcagatgc cttagccacc   360
245 agtaccctgc ccttccagag tgtgaattac ctaatgggaa catggccatt tggaaccatc   420
246 ctttgcaaga tagtgatctc catagattac tataacatgt tcaccagcat attcaccctc   480
247 ttcaccatga gtgttgatcg atacattgca gtctgccacc ctgtcaaggc cttagatttc   540
248 cgtactcccc gaaatgccaa aattatcaat gtctgcaact ggatcctctc ttcagccatt   600
249 ggtcttcctg taatgttcat ggctacaaca aaatacaggc aaggttccat agattgtaca   660
250 ctaacattct ctcatccaac ctggtactgg gaaaacctgc tgaagatctg tgtttttcatc   720
251 ttcgccttca ttatgccagt gctcatcatt accgtgtgct atggactgat gatcttgcgc   780
252 ctcaagagtg tccgcatgct ctctggctcc aaagaaaagg acaggaatct tcgaaggatc   840
253 accaggatgg tgctggtggt ggtggctgtg ttcatcgtct gctggactcc cattcacatt   900
254 tacgtcatca ttaaagcctt ggttacaatc ccagaaacta cgttccagac tgtttcttgg   960
255 cacttctgca ttgctctagg ttacacaaac agctgcctca cccagtcct ttatgcattt   1020
256 ctggatgaaa acttcaaacg atgcttcaga gagttctgta tcccaacctc ttccaacatt   1080
257 gagcaacaaa actccactcg aattcgtcag aacactagag accacccctc cacggccaat   1140
258 acagtggata gaactaatca tcagaattat tatataattc atagatgttg ctgcaatacc   1200
259 cctcttattt ctcaaaagcc agtcttgctc tggttctgtg attaa          1245
261 <210> SEQ ID NO: 9
262 <211> LENGTH: 414
263 <212> TYPE: PRT
264 <213> ORGANISM: Homo Sapiens
266 <400> SEQUENCE: 9
267 Met Asp Ser Ser Ala Ala Pro Thr Asn Ala Ser Asn Cys Thr Asp Ala
268 1               5                 10              15
269 Leu Ala Tyr Ser Ser Cys Ser Pro Ala Pro Ser Pro Gly Ser Trp Val
270     20              25              30
```

**RAW SEQUENCE LISTING ERROR SUMMARY**     DATE: 07/03/2002
PATENT APPLICATION:   US/10/080,917     TIME: 10:21:27

Input Set : **A:\Seqlist.txt**
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 160,161,162,181,255,258,259
Seq#:21; N Pos. 533,808,809,810,829,903,906,907
Seq#:22; N Pos. 112
Seq#:23; N Pos. 1091,1366,1367,1368,1387,1461,1464,1465

**VERIFICATION SUMMARY**
DATE: 07/03/2002
PATENT APPLICATION:   US/10/080,917
TIME: 10:21:27

Input Set : **A:\Seqlist.txt**
Output Set: **N:\CRF3\07032002\J080917.raw**

```
L:61 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:120
L:62 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:180
L:63 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:240
L:580 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:480
L:585 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:780
L:587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:900
L:601 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:60
L:634 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:1080
L:638 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:1320
L:639 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:1380
L:640 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:1440
```